

MS Journal Appendix for MRI methodology

Hardware	
Field strength	3T
Manufacturer	GE Medical Systems
Model	Discovery MR 750
Coil type (e.g. head, surface)	Head
Number of coil channels	

Acquisition sequence		
Type (e.g. FLAIR, DIR, DTI, fMRI)	3D BRAVO pre-and post-gadolinium, 3D FLAIR	
Acquisition time	In total about 75 minutes including spine	
Orientation		
Alignment (e.g. anterior commissure/poster commissure line)		
Voxel size	3D BRAVO: 1.0x1.0x1.0. 3D FLAIR: 1.2x1.2x1.2	
TR	3D BRAVO: 8,16 ms. 3D FLAIR: 8000 ms	
TE	3D BRAVO: 3,18 ms. 3D FLAIR: 127,25 ms	
TI	3D BRAVO: 450 3D FLAIR 2240	
Flip angle	3D BRAVO: 12	
NEX	3D BRAVO 1.00. 3D FLAIR: 1.00	
Field of view	3D BRAVO: 25.6. 3D FLAIR 25.6	
Matrix size		
Parallel imaging	Yes	No
If used, parallel imaging method: (e.g. SENSE, GRAPPA)		
Cardiac gating	Yes	No
If used, cardiac gating method: (e.g. PPU or ECG)		
Contrast enhancement	YES	No

Acquisition sequence	
If used, provide name of contrast agent, dose and timing of scan post-contrast administration	Gadolinium , 0.2 ml/kg, Timing: 5 min
Other parameters:	DTI, RSI, rs-fMRI, medualla

Image analysis methods and outputs	
Lesions	
Type (e.g. Gd-enhancing, T2-hyperintense, T1-hypointense)	T2-hyperintense & Gd-enhancing
Analysis method	See methods section and supplementary
Analysis software	See methods section and supplementary
Output measure (e.g. count or volume [ml])	See methods section and supplementary
Tissue volumes	
Type (e.g. whole brain, grey matter, white matter, spinal cord)	See methods section and supplementary
Analysis method	See methods section and supplementary
Analysis software	See methods section and supplementary
Output measure (e.g. absolute tissue volume in ml, tissue volume as a fraction of intracranial volume, percentage change in tissue volumes)	See methods section and supplementary
Tissue measures (e.g. MTR, DTI, T1-RT, T2-RT, T2*, T2', ¹H-MRS, perfusion, Na)	
Type (e.g. whole brain, grey matter, white matter, spinal cord, normal-appearing grey matter or white matter)	
Analysis method	
Analysis software	
Output measure	
Other MRI measures (e.g. functional MRI)	
Type (e.g. whole brain, grey matter, white matter, spinal cord, normal-appearing grey matter or white matter)	
Analysis method	
Analysis software	
Output measure	

Other analysis details: